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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,509	12/20/1999	DAVID L. Hecht	07447.0004-0	2485

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EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/467,509	Applicant(s) HECHT ET AL.	
	Examiner Christian La Forgia	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,11,16,17,22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10,12-15,18-21,23 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 29 March 2004 is noted and made of record.
2. Claims 1-31 are presented for examination.
3. Claims 4, 5, 11, 16, 17, 22, and 24 have been cancelled as per Applicant's request.

Response to Arguments

4. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.
5. See further rejections that follow.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 8-10, 12, 13, 19, 20, 25, 26, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,256,398 to Chang, hereinafter Chang.

8. As per claims 1 and 12, Chang teaches a record for marking encoded information comprising:

a marking medium (Figures 9a [block 908], 9b [block 924], 20a [block 2010]; column 1, lines 58-63; column 2, lines 23-28; column 12, lines 23-48; column 21, line 66 to column 22, line 40);

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first marks on said marking medium having a covert code characteristic, said first marks conveying a covertly marked code (Figures 9a [blocks 902, 906], 9b [blocks 918, 924]; column 10, lines 1-16; column 10, lines 12, lines 23-48; column 21, line 46 to column 22, line 8);

said covert code characteristic indicating a feature of the covertly marked code that is visually undetectable by a human (Figures 9a [blocks 902, 906], 9b [blocks 918, 924]; column 10, lines 1-16; column 10, lines 12, lines 23-48; column 21, line 46 to column 22, line 8); and

second marks on said medium that convey an overtly marked code (Figures 9a [blocks 904, 906, 908], 9b [blocks 914, 924], 19a [block 1912], 19b [block 1924]; column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32);

said overtly marked code, when decoded, producing data for use in decoding said covertly marked code (Figures 9a [blocks 904, 906, 908], 9b [blocks 914, 924], 19a [block 1912], 19b [block 1924]; column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32).

9. Regarding claims 8 and 19, Chang teaches wherein said first marks are comprised of a first and a second set of marks, and only said second set of marks convey said covertly marked code (column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32).

10. With regards to claims 9 and 20, Chang teaches wherein said overtly marked code identifies the location of said second set of marks (column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32).

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11. Regarding claims 10, Chang teaches wherein second marks include at least a subset of said first marks (column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32).

12. Regarding claim 13, Chang teaches wherein said second marks include at least a subset of said first marks (column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32).

13. Regarding claims 25 and 28, Chang teaches wherein the data produced for use in decoding said covertly marked code includes a location of the first marks on the encoded record (Figures 19a [block 1912], 19b [block 1924]; column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32).

14. Regarding claims 26 and 29, Chang teaches wherein the data produced for use in decoding said covertly marked code includes information about how the covertly marked code was encoded on the record (column 17, line 8 to column 18, line 32).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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16. Claims 2, 6, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of U.S. Patent No. 5,576,532 to Hecht, hereinafter Hecht.

17. Regarding claims 2 and 14, Chang does not disclose wherein said second marks have an overt code characteristic indicating a feature of the overtly marked code that is visually detectable by a human as a state of a self-clocking glyph code. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have said second marks have an overt code characteristic indicating a feature of the overtly marked code that is visually detectable by a human as a state of a self-clocking glyph code, since Hecht discloses in column 1, lines 36-49 that such a modification would allow a user to embed data in an image in an unobtrusive and aesthetically pleasing manner. Chang further suggests the use of self-clocking glyph code in column 11, lines 25-52.

18. Regarding claims 6 and 18, Chang does not teach wherein said first and second marks are self-clocking glyph codes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the first and second marks be self-clocking glyph codes, since Hecht discloses in column 1, lines 36-49 that such a modification would allow a user to embed data in an image in an unobtrusive and aesthetically pleasing manner. Chang further suggests the use of self-clocking glyph code in column 11, lines 25-52. Furthermore, it has been held that it only requires ordinary skill in the art to duplicate a part to multiply its effect. See MPEP § 2144.04; see *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

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19. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of U.S. Patent No. 5,225,900 to Wright, hereinafter Wright.

20. With regards to claims 3 and 15, Chang does not teach wherein said covert code characteristic is a chemical taggant. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covert code characteristic be a chemical taggant, since Wright discloses in column 8, lines 48-66 that such a modification would aid in the security of a document by preventing scanning.

21. Claims 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of U.S. Patent No. 5,895,073 to Moore, hereinafter Moore.

22. Regarding claims 7 and 21, Chang does not teach wherein said covertly marked code, when decoded, produces authentication data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce authentication data, since Moore discloses at column 6, line 51 to column 7, line 10 that such a modification would aid in detecting counterfeit documents or goods.

23. Claims 11, 27, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang.

24. Regarding claim 11, Chang does not teach further including third marks storing at least a portion of said encoded information, said third marks being distributed among said first and second marks. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to include a third set of marks, since it has been held that merely duplicating a part for a multiple effect requires only routine skill in the art.

25. Regarding claims 27 and 30, Chang does not teach wherein said covertly marked code, when decoded, produces an encrypted message. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce an encrypted message, since it has been held in the art that increasing the number of times a message has been encrypted increases the difficulty of cracking the message. See MPEP § 2144.04; see *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

26. As per claim 31, Chang teaches a method for marking encoded information on a marking medium comprising the steps of:

placing first marks on said medium having a covert code characteristic indicating a feature of the covertly marked code that is visually undetectable by a human (Figures 9a [blocks 902, 906], 9b [blocks 918, 924]; column 10, lines 1-16; column 10, lines 12, lines 23-48; column 21, line 46 to column 22, line 8);

a subset of said first marks conveying a covertly marked code (Figures 9a [blocks 902, 906], 9b [blocks 918, 924]; column 10, lines 1-16; column 10, lines 12, lines 23-48; column 14, line 66 to column 20, line 5; column 21, line 46 to column 22, line 8); and

placing second marks on said medium adapted to convey an overtly marked code (Figures 9a [blocks 904, 906, 908], 9b [blocks 914, 924], 19a [block 1912], 19b [block 1924]; column 14, line 66 to column 20, line 5; column 22, line 41 to column 23, line 32). Chang does

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not teach said overtly marked code, when decoded, producing an encrypted message and decryption data used by a secure server to decrypt the encrypted message; the decrypted message causing the secure server to produce decoding data indicating which ones of said first marks are included in the subset of said first marks that convey said covertly marked code. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce an encrypted message, since it has been held in the art that increasing the number of times a message has been encrypted increases the difficulty of cracking the message. See MPEP § 2144.04; see *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

27. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of U.S. Patent No. 4,461,668 to Parker et al., hereinafter Parker.

28. Regarding claim 23, Chang does not teach wherein the first and second marks are applied via tri-level xerography. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the first and second marks using tri-level xerography, since Parker discloses at column 4, lines 47-63 that such a modification would allow two images to be laid down in one pass, thereby producing an image quicker.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

30. The following patents are cited to further show the state of the art with respect to encoding data in another object set, such as:

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United States Patent No. 6,728,390 to Rhoads et al., which is cited to show using multiple watermarks.

United States Patent No. 6,744,906 to Rhoads et al., which is cited to show using multiple watermarks.

United States Patent No. 5,771,245 to Zhang, which is cited to show protecting two-dimensional codes from one or more burst errors patterns.

United States Patent No. 6,577,748 to Chang, which is cited to show encoding and recording a message within an image.

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

32. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (703) 305-7704. The examiner can normally be reached on Monday thru Thursday 7-5.


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34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

35. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christian LaForgia
Patent Examiner
Art Unit 2131

clf


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